



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/624,798	07/24/2000	Paul C Coffin	10001664-1	6517

22879 7590 05/05/2003

HEWLETT PACKARD COMPANY
P O BOX 272400, 3404 E. HARMONY ROAD
INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER

WATKO, JULIE ANNE

ART UNIT	PAPER NUMBER
----------	--------------

2652

DATE MAILED: 05/05/2003

13

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/624,798

Applicant(s)

COFFIN ET AL.

Examiner

Julie Anne Watko

Art Unit

2652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 April 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 10-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 10-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 10.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1 and 5-6 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Menke et al (US Pat. No. 5841744).

As recited in claim 1, Menke et al show a reconfigurable cartridge processing module for use in a data storage system, comprising: a frame, said frame having a lower plate and an upper

Art Unit: 2652

plate positioned in generally parallel, spaced-apart relation, said lower and upper plates of said frame having a plurality of sets of mounting locations provided thereon so that said frame defines a first component configuration (see Fig. 21) and a second component configuration (see Fig. 20), the first component configuration comprising: a first cartridge receiving device 5 mounted to a first set of the plurality of sets of mounting locations provided on said frame so that said first cartridge receiving device is located at a first position within said frame; and a second cartridge receiving device 5 mounted to a second set of the plurality of sets of mounting locations provided on said frame so that said second cartridge receiving device is located at a second position within said frame, said first and second cartridge receiving devices together occupying a volumetric space within said frame, wherein said first and second cartridge receiving devices are located substantially between the upper and lower plates of said frame when said frame is in the first component configuration; the second component configuration comprising a third cartridge receiving device 4 mounted to a third set of the plurality of sets of mounting locations provided on said frame, wherein said third cartridge receiving device is located substantially between the upper and lower plates of said frame when said frame is in the second component configuration.

As recited in claim 1, according to an **open interpretation**, Menke et al show said third cartridge receiving device occupying substantially the same volumetric space (see Figs. 20 and 21; insofar as upper magazine 4 in Fig. 20 occupies the space of all 3 adjacent drives 5 in Fig. 21, upper magazine 4 occupies all subsets of said space, including the space of any 2 adjacent drives 5 in Fig. 21) within said frame as is occupied by said first and second cartridge receiving devices in said first component configuration.

Art Unit: 2652

If, however, the limitation “said third cartridge receiving device occupying substantially the same volumetric space within said frame as is occupied by said first and second cartridge receiving devices in said first component configuration” were interpreted according to a **closed interpretation** such that the limitation precluded the occupation by 4 of additional space, then the claim is unpatentable as obvious in view of Menke et al as follows.

Menke et al show a reconfigurable cartridge processing module as described above, with the following exception.

Menke et al do not explicitly show (under a **closed interpretation**) replacing 2 devices with a single device, such that substantially the same space (and no additional space) is occupied by the single device as was occupied by said 2 devices.

Menke et al show replacing 3 devices with a single device, such that substantially the same space (and no additional space) is occupied by the single device as was occupied by said 3 devices (see Figs. 21 and 20).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to arrive at the claimed number of replaced parts in the course of routine experimentation and optimization as is notoriously well known in the art. The rationale is as follows: one of ordinary skill in the art would have been motivated to arrive at the claimed number of replaced parts in the course of routine experimentation and optimization in order to achieve flexibility in storage apparatus configuration so as to enhance functionality and to adapt to changing host system requirements as is notoriously well known in the art (see also arguments below).

Art Unit: 2652

As recited in claim 5, Menke et al show that the second position (in which 5 is located in Fig. 21) is located adjacent the first position (in which 5 is located in Fig. 21) so that said second cartridge receiving device is located adjacent said first cartridge receiving device when said frame is in the first component configuration (see adjacent drives 5 in Fig. 21).

As recited in claim 6, Menke et al show that the second position is located alongside (see Fig. 21, rotated if necessary) the first position so that said second cartridge receiving device is located alongside said first cartridge receiving device when said frame is in the first component configuration.

5. Claims 2-4 and 10-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Menke et al (US Pat. No. 5841744).

Menke et al show a module as described above.

Due to similarity of claimed subject matter, claims 10, 14 and 20 are treated together. Read "means" for "device" where appropriate for claim 14. The method of claim 20 is not patentably distinct from claims 10 and 14.

As recited in claims 10, 14 and 20, Menke et al show, in addition to the above teachings (see especially teachings above regarding claim 1), the second position being located adjacent the first position so that said second cartridge receiving device is located alongside said first cartridge receiving device (see teaching above for claim 6), said third cartridge receiving device in said second component configuration substantially replacing said first and second cartridge receiving devices in said first component configuration (see open interpretation above for claim 1).

As recited in claims 10, 14 and 20, Menke et al do not explicitly show **vice-versa**, that a volumetric space occupied by said third cartridge receiving device in said second component configuration is substantially occupied by said first and second cartridge receiving devices in said first component configuration.

Although Menke et al are silent regarding a single device substantially replacing 2 devices with substantially identical occupied space, Menke et al explicitly show a single device 4 substantially replacing 3 devices with substantially identical occupied space.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to arrive at the claimed number of replaced parts in the course of routine experimentation and optimization as is notoriously well known in the art. The rationale is as follows: one of ordinary skill in the art would have been motivated to arrive at the claimed number of replaced parts in the course of routine experimentation and optimization in order to achieve flexibility in storage apparatus configuration so as to enhance functionality and to adapt to changing host system requirements as is notoriously well known in the art (see also arguments below).

As recited in claims 2 and 11, Menke et al show that said first cartridge receiving device comprises a cartridge 7 read/write device 5.

As recited in claims 2 and 11, Menke et al are silent regarding a half-width dimension.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to use a half-width cartridge read/write device in the module of Menke et al. The rationale is as follows: one of ordinary skill in the art would have been motivated to arrive at the claimed dimensions through the process of routine experimentation and optimization in the

Art Unit: 2652

absence of criticality *Gardner v. TEC systems, Inc.*, 220 USPQ 777 (Fed. Cir. 1984) as is notoriously well known in the art (see also arguments below).

Furthermore, absent a showing of criticality (i.e., unobvious or unexpected results), the dimensions set forth in claims 2 and 11 are considered to be within the level of ordinary skill in the art.

Moreover, the instant disclosure does not set forth evidence ascribing unexpected results due to the claimed dimensions. See *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338 (Fed. Cir. 1984), which held that the dimensional limitations failed to point out a feature which performed and operated any differently from the prior art.

As recited in claims 3, 12 and 18, Menke et al are silent regarding whether said second cartridge receiving device comprises a cartridge storage magazine.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a cartridge storage magazine as a second device in the module of Menke et al as is notoriously well known in the art. The rationale is as follows: one of ordinary skill in the art would have been motivated to use a cartridge storage magazine as a second device in order to increase a storage capacity of the module as is notoriously well known in the art (see also arguments below).

As recited in claims 4, 13 and 19, Menke et al are silent regarding whether said third cartridge receiving device comprises a full-width cartridge read/write device.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a full-width cartridge read/write device as a third device in the module of Menke et al as is notoriously well known in the art. The rationale is as follows: one of ordinary

Art Unit: 2652

skill in the art would have been motivated to use a full-width cartridge read/write device as a third device in order to increase a reproduction rate of the module as is notoriously well known in the art (see also arguments below).

Regarding claim 15: See teaching above for claim 5.

Regarding claim 16: See teaching above for claim 6.

As recited in claim 17, Menke et al show that said first cartridge receiving means comprises cartridge read/write means 5 for reading data from and writing data to said at least one data cartridge 7.

Response to Arguments

6. Applicant's arguments filed April 3, 2003, have been fully considered but they are not persuasive.

Applicant's arguments regarding the indefiniteness rejections under 35 U.S.C. 112, 2nd paragraph, are persuasive. The indefiniteness rejections have been withdrawn.

Regarding claim 1 and its dependent claims: On page 4, lines 15-22, Applicant argues "that the third cartridge receiving device (e.g., item 4 in Figure 14, annotated) does not occupy "substantially the same volumetric space" within the frame as occupied by the first and second cartridge receiving devices (e.g., items 5 in Figure 15, annotated). To the contrary, the third device (e.g., item 4) clearly occupies significantly more volumetric space than is occupied by the first and second devices (e.g., items 5)." The Examiner has considered this argument thoroughly and agrees that the third device occupies some additional space; however, the fact that additional space is also occupied does not negate the fact that the recited space is occupied.

Art Unit: 2652

Moreover, even if Applicant's interpretation were correct, such that the occupation of additional space were precluded by claim 1, the claim is obvious in view of Menke et al as described in the rejections above. The other prior art of record clearly supports the rationale and motivation for altering the module of Menke et al.

Dankman et al (US Pat. No. 5491609) teach that, because of a need to "provide a great deal of **flexibility** to users", it is desirable for computers to "provide the capability to change their configuration by simply sliding an external module of **any size**, for example, a CD-ROM module ... into an external docking bay on a computer that transforms the computer (with the added module) into a new system with enhanced functionality" (see col. 2, lines 14-21, emphasis added). Dankman et al also teach replacing 2 devices by a single device having a width equal to the sum of the widths of the 2 replaced device (see col. 6, lines 10-22, in which 2 devices with widths W and 2W, are replaced by a device with width 3W).

Kersey et al (US Pat. No. 5870245) teach that "system **flexibility** of tape and other storage media libraries is highly desirable" (see col. 1, lines 53-56, emphasis added). Kersey et al teach that "It is also desirable to provide system **flexibility** which allows the use of drive, media, and combination drive/media modules, and which allows easy interchangeability of the modules to adapt to changing host system requirements" (see col. 1, lines 58-62, emphasis added).

Itawaki et al (EP 0542482 A2) teach that "video tape recorder 7a can be exchanged freely for another video tape recorder of a different type" (see col. 24, lines 32-34), wherein the other type of recorder disclosed is "**two** video tape recorders 7b" (see col. 22, lines 30-32, emphasis added; see also Figs. 1 and 3).

Art Unit: 2652

The teachings of the prior art make it clear that **flexibility** is desirable, such that the sizes of devices are variable according to user preference, and that types of devices are variable according to user preference, and that a number of devices replaced is variable according to user preference, and that replacing 2 devices with a single device was within the level of ordinary skill in the art. These variables may be changed at the whim of the user to meet evolving data storage needs.

Furthermore, Applicant has failed to demonstrate criticality of the number 2 by a showing of any unexpected results due to the claimed number of replaced devices.

Applicant's other arguments are moot in view of the new grounds of rejection.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Menke (WO 95/07531) shows "at least two play-back units (2) for reading or writing information of the disk", wherein "the play-back units (2) are exchangeably superimposed in the plane of the disk magazine (4)" (see English language Abstract).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julie Anne Watko whose telephone number is (703) 305-7742. The examiner can normally be reached on Mon-Thurs 7:30-5 and alternate Fri 8:30-5.

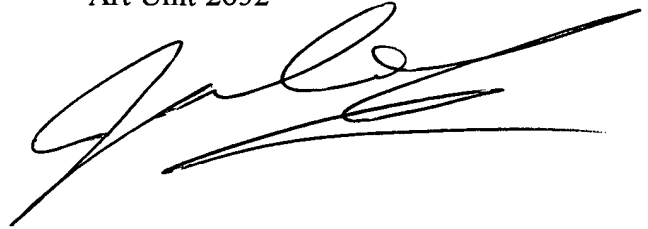
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T. Nguyen can be reached on (703) 305-9687. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9315 for After Final communications.

Art Unit: 2652

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

Julie Anne Watko
Examiner
Art Unit 2652

JAW
May 1, 2003

A handwritten signature in black ink, appearing to read 'Julie Anne Watko', with a long horizontal flourish extending to the right.